

# Rab 3 GAP p130 (G-3): sc-393540

## BACKGROUND

Rab3 proteins are involved in regulated exocytosis of neurotransmitters and hormones. Rab 3 GAP p130, also known as Rab3 GTPase-activating protein catalytic subunit, is a 981 amino acid protein that belongs to the Rab3-GAP catalytic subunit family. Rab 3 GAP p130 converts active RAB3-GTP to the inactive form RAB3-GDP, and is required for normal eye and brain development. Defects in Rab 3 GAP p130 are the cause of Warburg micro syndrome 1 (WARBM1). WARBM1 is a severe autosomal recessive disorder characterized by developmental abnormalities of the eye and central nervous system and by microgenitalia. The Rab 3 GAP p130 protein may participate in neurodevelopmental processes such as proliferation, migration and differentiation before synapse formation, and non-synaptic vesicular release of neurotransmitters. Existing as two alternatively spliced isoforms, the Rab 3 GAP p130 gene is conserved in chimpanzee, canine, bovine, mouse, chicken, zebrafish and fruit fly, and maps to human chromosome 2q21.3.

## REFERENCES

1. Fukui, K., et al. 1997. Isolation and characterization of a GTPase activating protein specific for the Rab3 subfamily of small G proteins. *J. Biol. Chem.* 272: 4655-4658.
2. Oishi, H., et al. 1998. Localization of the Rab3 small G protein regulators in nerve terminals and their involvement in  $Ca^{2+}$ -dependent exocytosis. *J. Biol. Chem.* 273: 34580-34585.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602536. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: RAB3GAP1 (human) mapping to 2q21.3.

## SOURCE

Rab 3 GAP p130 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 901-924 near the C-terminus of Rab 3 GAP p130 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 3 GAP p130 (G-3) is available conjugated to agarose (sc-393540 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393540 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393540 PE), fluorescein (sc-393540 FITC), Alexa Fluor® 488 (sc-393540 AF488), Alexa Fluor® 546 (sc-393540 AF546), Alexa Fluor® 594 (sc-393540 AF594) or Alexa Fluor® 647 (sc-393540 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393540 AF680) or Alexa Fluor® 790 (sc-393540 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393540 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

Rab 3 GAP p130 (G-3) is recommended for detection of Rab 3 GAP p130 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rab 3 GAP p130 siRNA (h): sc-94704, Rab 3 GAP p130 shRNA Plasmid (h): sc-94704-SH and Rab 3 GAP p130 shRNA (h) Lentiviral Particles: sc-94704-V.

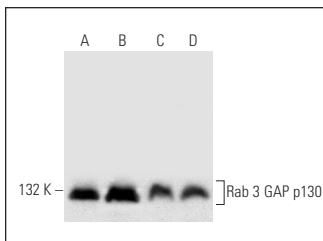
Molecular Weight of Rab 3 GAP p130 isoforms: 111/8 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, IMR-32 cell lysate: sc-2409 or K-562 nuclear extract: sc-2130.

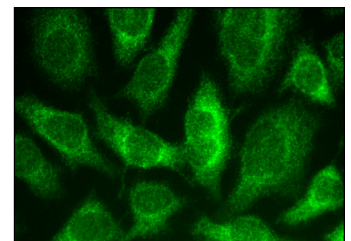
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Rab 3 GAP p130 (G-3): sc-393540. Western blot analysis of Rab 3 GAP p130 expression in K-562 (A) and IMR-32 (B) whole cell lysates and K-562 (C) and IMR-32 (D) nuclear extracts.



Rab 3 GAP p130 (G-3): sc-393540. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.